				D	ate		
	ROUTING AND TRANSMITTAL SLIP					2 (1	2 (89
TO	: (Name, office symbol, building, Agency/Post)					Initials	Date
1.	Bobk	10	oow-to				
2							
2.			-				
3.							
4.							
5.							
X	Action		File		Note	and Retu	rn
	Approval		For Clearance	X	Per (	Conversat	ion
X	As Requested		For Correction		Prep	are Reply	
	Circulate	*	For Your Information		See	Me	
	Comment		Investigate		Sign	ature	
	Coordination		Justify				

REMARKS



DO	NOT	use	this	form	as a	RECORD	of	approvals,	concurrences,	disposals,
					clears	ances, and	simi	ilar actions		

FROM: (Name, org. symbol, Agency/Post)

Room No.—Bldg.

Phone No.

5041-102

\* U.S. GPO: 1988 - 196-509

OPTIONAL FORM 41 (Rev. 7-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.206

POSITIVELY IDENTIFIED VOLATILE ORGANIC COMPOUNDS IN GROUND WATER (ug/1)

	FEDERAL DRINKING WATER GUIDELINES HIGHEST	SAMPLE LOCATION			
COMPOUND	SAFE LEVEL	EE-2	EE-3		
1,1-DICHLOROETHYL		5.0	50.0U	13.0	
1,1-DICHLOROETHAN	IE -	15.0	64.0	35.0	
TRANS-1, 2-DICHLOROETHYLEN	NE 270	9.0	50.0U	15.0	
CHLOROFORM	100	3.0	50.0U	17.0	
1,1,1-TRICHLOROET	THANE 1000	70.0	420.0	168.0	
TRICHLOROETHYLENE	4.5	65.0	480.0	164.0	
TETRACHLOROETHYLE	ENE 3.5	32.0	5.00	5.0U	
TOLUENE		5.00	230.0	5.00	
TOTAL XYLENE	620	5.00	63.0	5.00	

From Ett (86)

# FAX TO: ALCHEM 336 1461

10/5/89 BE

# SUE - THESE ARE PASCO REGULEMENTS PLEASE ANALYSE THE ANNUALS YOU JUST REC'D ACCORDINGLY

			/	ing ion and i Kier in Microkininera
The Wilder St. of Control of the Control of the Control of Control		PASCO LA	NDFILL WELL MEAS	SUREMENTS
JUB CONTROL JUB 2	SOLVENTS 1/QTF: 1/QTF:	TOTAL Fe Mn Cu Ba 1/QTR 1/QTR	HERBICIDES 240,2451,2451P	MFS STATE
EE3 JUB4 EE2	17QTR 17QTR 17QTR	1/QTR 1/QTR 1/QTR	I/YR I/YR	120TR 120TR 120TR 120TR
EE 1 EE4 EE5 EE6 EE7 EE8 WATER SUPPLY	1/YR 1/YR 1/YR 1/YR 1/YR 1/YR 1/YR	1/YR 1/YR 1/YR 1/YR 1/YR 1/YR 1/YR	L/YR L/YR	1/QIR 1/QIR 1/QIR 1/QIR 1/QIR 1/QIR
JUB I JUB 3 EE 9				TZÖTR MO WATER OUAL RECONTS  1ZÖTR NO WATER OUAL RECONTS  WELL DESTROYED

## ANNUALLY Organic Solvents

1,1-Dichloroethylene
1,1-Dichloroethane
Trichloroethylene
Chloroform
1,1,1-Trichloroethane
Trichloroethylene
Tetrachloroethylene
Toluene
Total Xylene

## QUARTERLY Urganic Solvents

1,1-Dichloroethylene
1,1-Dichloroethane
Trichloroethylene
Chloroform
1,1,1-Trichloroethane
Trichloroethylene
Tetrachloroethylene
Toluene
Total Xylene
Vinyl Clerile

## QUARTERLY Minimum Functional Standard Contaminants

Temperature
Conductivity
pH
Chloride
Nitrate, Nitrite, and Ammonia
as Nitrogen
Sulfate
Dissolved Iron
Dissolved Zinc and Manganese
Chemical Oxygen Demand
Total Organic Carbon
Total Coliform

### Technico & Enviro Services Co.



(509) 7357283

Suite 33

1776 Fowler

Richland, Wa. 99352

December 5, 1988

Mr. Cris Matthews Solid Waste Coordinator Environmental Quality Div. Washington Dept. of Ecology N. 4601 Monroe Street Suite 100 Spokane, WA 99205-1295

Subject: Groundwater Monitoring Results at the Pasco

Sanitary Landfill

Dear Mr. Matthews:

This letter provides you with the water quality monitoring results for the fourth quarter of 1988. Wells requiring annual sampling will be sampled before the end of December.

Sincerely,

John A. zillich

JAZ/tg

Enclosure

cc: Larry Dietrich Larry Kamberg

### PLF FIELD MEAS 10/88

				G	ROUND WATER				
	SITE:PASCO				ATION DATA SH				
	DATE: 10/88								
			MEASURED	TOP OF CASING	DEPTH TO	GROUND WATER	SPEC COND	рН	TEMP C
	WELL NO.	DATE	AT	ELEVATION	WATER	ELEVATION	0.000	P'	12111 0
	JUB CONTROL	10/26/88	TOP OF PYC	411.6	54.24	357.36	520	7.8	14.4
ļ	JUB 1	10/26/88	TOP OF PYC	417.1	69.97	347.13			
	JUB 2	10/26/88	HOLE IN CAP	408.3	60.81	347.50		7.75	17.0
	JUB 3	10/26/88	TOP OF PYC	420.4	74.28				17.0
L	JUB 4	10/26/88	TOP OF PYC	393.7			660	7.4	16.3
	EE 1	10/26/88	TOP OF PIPE	417.2	59.73	357.47			<del></del>
	EE 2	10/26/88	HOLE IN CAP	418.9	68.73	350.14	650	7.6	16.4
L	EE 3	10/26/88	HOLE IN CAP	416.8	67.14	349.63		7.05	17.0
	EE 4	10/26/88	TOP OF PIPE	397.6	47.30	350.30			
	EE 5	10/26/88	TOP OF PIPE	407.9	56.07	351.83			<del></del> -
	EE 6	10/26/88	TOP OF PIPE	427.0	73.96	353.04			<del></del>
	EE 7	10/26/88	TOP OF PIPE	425.6	73.09	352.51			<del></del>
	EE 8	10/26/88	TOP OF PIPE	428.4	75.52	352.88			

250 S. Beechwood Avenue, Suite II Boise, Idaho 83709 (208) 376-2257

### LABORATORY REPORT

TECHNICO-ENVIRO SERVICE
1776 FOWLER, SUITE 33
RICHLAND, WASHINGTON 99352

ATTENTION: JOHN ZILLICH SOURCE -: D-I BLANK DATE COLLECTED - - - 10/27/88

TIME COLLECTED - - DATE RECEIVED - - - 10/28/88

DATE REPORTED - - - 11/07/88

SUBMITTED : JOHN ZILLICH

LAB SAMPLE NUMBER - 5574

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANALYST
IRON (DISS.) MANGANESE (DISS.)	0.06 (0.01	10/31/88 10/31/88	KS KS
ZINC (DISS.)	0.011	10/31/88	RC

.mis report for the exclusive use of the client(s) to whom it is addressed. Its disclosure to others for use in advertising is not authorized. These results refer only to the specific sample tested. Liability is limited to cost of analysis.

250 S. Beechwood Avenue, Suite II Boise, Idaho 83709 (208) 376-2257

### LABORATORY REPORT

TECHNICO-ENVIRO SERVICE	
1776 FOWLER, SUITE 33	
RICHLAND, WASHINGTON	9935

99352

DATE COLLECTED - - - 10/27/88 TIME COLLECTED - - -

DATE RECEIVED - - - 10/28/88 DATE REPORTED - - - 11/07/88

SUBMITTED : JOHN ZILLICH

ATTENTION: JOHN ZILLICH

SOURCE -: EE 2

LAB SAMPLE NUMBER - 5573

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANAL YST
CHEMICAL OXYGEN DEMAND BARIUM COPPER IRON MANGANESE ZINC IRON (DISS.) MANGANESE (DISS.) ZINC (DISS.)	9.0	10/31/88	RC
	0.10	11/07/88	DM
	<0.01	10/31/88	SH
	0.08	10/31/88	KS
	<0.01	10/31/88	KS
	0.001	10/31/88	RC
	<0.01	10/31/88	KS
	<0.01	10/31/88	KS

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250 S. Beechwood Avenue, Suite II Boise, Idaho 83709 (208) 376-2257

### LABORATORY REPORT

TECHNICO-ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON

99352

DATE COLLECTED - - -10/27/88
TIME COLLECTED - - DATE RECEIVED - - - 10/28/88

DATE REPORTED - - - 11/07/88

SUBMITTED : JOHN ZILLICH

ATTENTION: JOHN ZILLICH

SOURCE -: JUB 2

LAB SAMPLE NUMBER - 5572

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	<b>ANAL YST</b>
CHEMICAL OXYGEN DEMAND	4.0	10/31/88	RC
BARIUM	(0.10	11/07/88	DM
COPPER	(0.01	10/31/88	SH
IRON	0.05	10/31/88	KS
MANGANESE	<i>(0.01</i>	10/31/88	KS
ZINC	0.001	10/31/88	RC
IRON (DISS.)	0.25	10/31/88	KS
MANGANESE (DISS.)	<i>&lt;0.01</i>	10/31/88	KS
ZINC (DISS.)	0.002	10/31/88	RC

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250 S. Beechwood Avenue, Suite II Boise, Idaho 83709 (208) 376-2257

### LABORATORY REPORT

TECHNICO-ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON

99352

DATE COLLECTED - - - 10/27/88

TIME COLLECTED - - DATE RECEIVED - - - 10/28/88

DATE REPORTED - - - 11/07/88

SUBMITTED : JOHN ZILLICH

ATTENTION: JOHN ZILLICH SOURCE -: JUB CONTROL

LAB SAMPLE NUMBER - 5571

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANALYST
TOTAL COLIFORM	13	10/28/88	KS
CHEMICAL OXYGEN DEMAND	10.0	10/31/88	RC
BARIUM	0.10	11/07/88	DM
COPPER	<i>&lt;0.01</i>	10/31/88	SH
IRON	0.09	10/31/88	KS
MANGANESE	<i>&lt;0.01</i>	10/31/88	KS
ZINC	0.002	. 10/31/88	RC
IRON (DISS.)	(O.OI	10/31/88	KS
MANGANESE (DISS.)	(O.O1	10/31/88	KS
ZINC (DISS.)	0.009	10/31/88	RC

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250 S. Beechwood Avenue, Suite II Boise, Idaho 83709 (208) 376-2257

### LABORATORY REPORT

TECHNICO-ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON

99352

TIME COLLECTED - - DATE RECEIVED - - - 10/28/88
DATE REPORTED - - - 11/07/88
SUBMITTED : JOHN ZILLICH

DATE COLLECTED - - -10/27/88

ATTENTION: JOHN ZILLICH

SOURCE -: EE 3

LAB SAMPLE NUMBER - 5570

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANAL YST
TOTAL COLIFORM CHEMICAL OXYGEN DEMAND BARIUM COPPER IRON MANGANESE ZINC IRON (DISS.) MANGANESE (DISS.) ZINC (DISS.)	5	10/28/88	KS
	18.0	10/31/88	RC
	0.20	11/07/88	DM
	(0.01	10/31/88	SH
	12.70	10/31/88	KS
	1.37	10/31/88	KS
	0.004	10/31/88	RC
	11.64	10/31/88	KS
	1.33	10/31/88	KS

This report for the exclusive use of the client(s) to whom it is addressed. Its disclosure to others for use in advertising is not authorized. These results refer only to the specific sample tested. Liability is limited to cost of analysis.

250 S. Beechwood Avenue, Suite II Boise, Idaho 83709 (208) 376-2257

### LABORATORY REPORT

TECHNICO-ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON

99352

DATE COLLECTED - - - 10/27/88 TIME COLLECTED - - -DATE RECEIVED - - - 10/28/88

DATE REPORTED - - - 11/07/88

SUBMITTED : JOHN ZILLICH

ATTENTION: JOHN ZILLICH

SOURCE -: JUB 4

LAB SAMPLE NUMBER, - 5569

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANALYST
TOTAL COLIFORM	** <1	10/28/88	KS
CHEMICAL OXYGEN DEMAND	7.0	10/31/88	RC
BARIUM	0.20	11/07/88	DM
COPPER	(0.01	10/31/88	SH
IRON	0.06	10/31/88	KS
MANGANESE	<i>&lt;0.01</i>	10/31/88	KS
ZINC	0.003	10/31/88	RC
IRON (DISS.)	(0.01	10/31/88	KS
MANGANESE (DISS.)	(0.01	10/31/88	KS
ZINC (DISS.)	(0.001	10/31/88	RC

COMMENTS: \*\* NO INTESTINAL BACTERIA WERE FOUND ON CULTURE PLATE. \*\*

This report for the exclusive use of the client(s) to whom it is addressed. Its disclosure to others for use in advertising is not authorized. These results refer only to the specific sumple and authorized to cost of analysis.

The Blank has been subtracted from the Diss

### ANALYTICAL REPORT

Technico & Environmental 201 West 33rd Avenue

Kennewick, Washington 99337

ATTENTION: Mr. John Zillich

IDENTIFICATION:

Water Samples PASCO LANDFILL DATE SAMPLE RECEIVED: 11/02/88

MONTH COVERED: November, 1988 CLIENT NUMBER: TEC200

SAMPLED BY: Client FREQUENCY: As Requested November 23, 1988 DATE:

Page 2 of 2

SAMPLE				
NUMBER:	CLIENT I.D.	тос		UNITS
09639	JUB Control	10.4		
09640	JUB2		18.7 (Rep)	mg/l
09641		15.9		mg/l
09642	JUB4	19.4		mg/l
	EE2	N/A		_
09643	EE3		34.6.45	mg/l
		24.1	34.6 (Rep)	mg/l

D. I. Blank - (1.00 46 mg/l Check Standard - 49.2 Acceptable Range - 35-57 Spike Recovery - 97% Date Analyzed - 11/3/88 Analyst - DD

APPROVED BY:

KAREN H. BROWN LABORATORY MANAGER

601-863-3036

### ANALYTICAL REPORT

Technico & Environmental 201 West 33rd Avenue Kennewick, Washington 99337

ATTENTION: Mr. John Zillich

DATE SAMPLE RECEIVED: 11/02/88 MONTH COVERED: November, 1988

CLIENT NUMBER: TEC200 SAMPLED BY: Client FREQUENCY: As Requested DATE: November 23, 1988

Page 1 of 2

IDENTIFICATION: Water Samples PASCO LANDFILL

SAMPLE NUMBER: CLIENT ID:	09639 JUB CONTROL	09640 JUB2	09641 JUB4	09642 EE2	09643 EE3	UNITS
Vinyl Chlorde	<b>&lt;</b> 5	<b>&lt;</b> 5	N/A	<b>&lt;</b> 5	<5	μg/l
1,1-Dichloroethylene	e <5	35	N/A	∢5	18	μg/l
1,1-Dichloroethane	<b>₹</b> 5	85	N/A	6	130	μg/l
Chloroform ·	<5	54	N/A	₹5	44	μg/l
1,1,1-Trichloroethan	ne <5	230	N/A	40	291	μg/l
Trichloroethylene	<b>₹</b> 5	50	N/A	<b>&lt;</b> 5	112	μg/l
Tetrachloroethylene	<5	<b>&lt;</b> 5	N/A	<b>&lt;</b> 5	9	μg/l
Total Xylenes	<5	14	N/A	<b>&lt;</b> 5	85	μg/l

APPROVED BY:

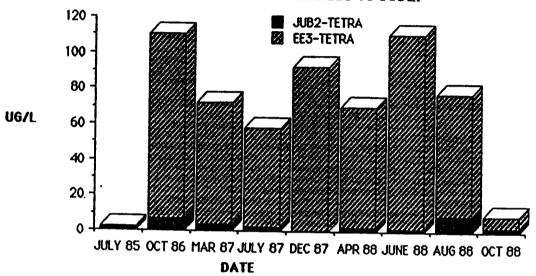
KAREN H. BROWN LABORATORY MANAGER

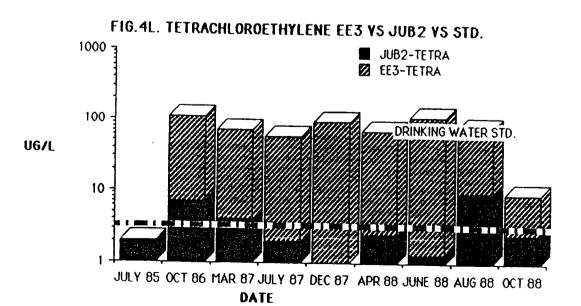
WATER BACTERIOLOGICA SAMPLE COLLECTION: READ INSTRUCTIONS ON BA	AL ANALYSIS CK OF GOLDENROD COPY	WATER BACTERIOLO SAMPLE COLLECTION: READ INSTRUCTIONS If instructions are not followed,	GICAL ANALYSIS
DATE COLLECTED  MONTH  DAY  YEAR  AM  TYPE OF SYSTEM  IF PUBLIC SYSTEM, COMPLE  PUBLIC  PUBLIC  DATE  TIME COLLECTED  AM  DAM  DAM  DAM  TYPE  PUBLIC  PUBLIC  DAM  DAM  DAM  DAM  DAM  DAM  DAM  DA	e lattereng eint int Segunden Statemend 1981 innet int wenness TErdentet eingenen	TYPE OF SYSTEM IF PUBLIC SYSTEM, (	D PM COMPLETE:
INDIVIDUAL (serves only 1 residence)  NAME OF SYSTEM	CIRCLE CLASS 1 2 3 4	PUBLIC INDIVIDUAL (serves only 1 residence)	CIRCLE CL/
DUB D. Well T.		NAME OF SYSTEM  ERRI ORS KINE OF THE CONTROL OF THE	Trees con Tile of the American
SPECIFIC LOCATION WHERE SAMPLE COLLECTED SYSTEM OWNER (a. kitchen tap @ achool, fire station, fountain)	TAMOR, HAME AND TELEPHONE NO.	SPECIFIC LOCATION WHERE SAMPLE COLLECTED SYS (e. kitchen tep e school, fire station, fountain)	7, 0.00 20 20 20 20 20 20 20 20 20 20 20 20 2
SAMPLE COLLECTED BY: (Name) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		SAMPLE COLLECTED BY: (Name)	er all dan (Mayer III) wer
SOURCE TYPE  SURFACE WELL SPRING PURCH	O OTHER	SOURCE TYPE SURFACE WELL SPRING C	PURCHASED COMBINAT
SEND REPORT TO: Print Full Name, Address and Zip Cod	0)	SEND REPORT TO: (Print Full Name, Address an	d Zip Code)
1776 Fewler	· · · · · · · · · · · · · · · · · · ·	1776 Fowler	
	WASHINGTON	Reihal	C CWASHINGTON
TYPE OF SAMPLE [Check only one in this column]	iki sa <b>un</b> aga Kabupatèn ngara	TYPE OF SAMPLE Check only one in this column)	N : -
1. DRINKING WATER Chlorinated (Residu check treatment DITECTION Untreated or Other	al:TotalFree)	check treatment → ☐ Filtered	d (Residual:TotalFre
2. RAW SOURCE WATER 3. NEW CONSTRUCTION or REPAIRS 4. OTHER (Specify)	7 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	2. RAW SOURCE WATER 3. NEW CONSTRUCTION or REPAIRS 4. OTHER (Specify)	or Other
COMPLETE IF THIS SAMPLE IS A CHECK SAMPLE		COMPLETE IF THIS SAMPLE IS A CHECK S	SAMPLE
PREVIOUS LAB NO PREVIOUS SAMPLE COLLECTION DATE		PREVIOUS LAB NO	<u>-</u>
REMARKS:		PREVIOUS SAMPLE COLLECTION DATE REMARKS:	
LABORATORY RESULTS (FOR LAI	•	LABORATORY RESULTS	(FOR LAB USE ONLY)
MPN - COLIFORM STD PLATE COUNT 5 /5 tubes positive /ml	SAMPLE NOT TESTED BECAUSE:	MPN - COLIFORM STD PLATE COUNT	SAMPLE NOT TESTED BECAUSE:
and the second s	Sample (50, 0.0	MPN DICUTION TEST UNSUITABLE	Sample Today
	Not in Proper Container		h Not in Proper Conta
MF COLIFORM 2. TNTC	Insufficient Information	MF COLIFORM 2. TNTC	
	Insufficient'Information Provided—Please Read Instructions on Form	/100 ml	Insufficient'Informati Provided—Please Re- Instructions on Form
D Man D M	_	FECAL COLIFORM 3. Excess Debris	
4		☐ MPN ☐ MF 4. ☐	_
FOR DRINKING WATER SAMPLES ONLY, THESE F	,	FOR DRINKING WATER SAMPLES ONLY.	THESE RESULTS ARE:
	INSFACTORY		UNSATISFACTORY
SEE REVERSE SIDE OF GREEN COPY FOR EXPLA  LAB NO.  DATE, TIME RECEIVED	RECEIVED BY	SEE REVERSE SIDE OF GREEN COPY FO	
6203569 10-26-88			
DATE REPORTED LABORATORY:	415 0~	6203568 /6-26-89 DATE REPORTED LABORATORY	8 4.15 Dm
10-28-88	1962年4日1日 - 1863年 - 1	DATE REPORTED LABORATORY:	
REMARKS (A.F.)	1000000000000000000000000000000000000	REMARKS	

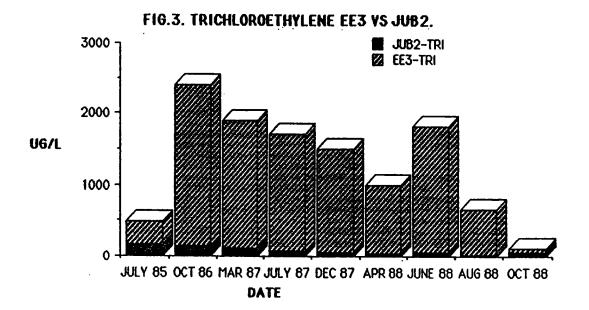
### Results for October Sampling at Pasco Sanitary Landfill

 Location	Date	Cl	so <sub>4</sub>
JUB Control	10/27/88	28	31.6
EE 3	10/26/88	45	20.6
JUB 2	10/26/88	30	34.5
JUB 4/	10/27/88	21	31.1









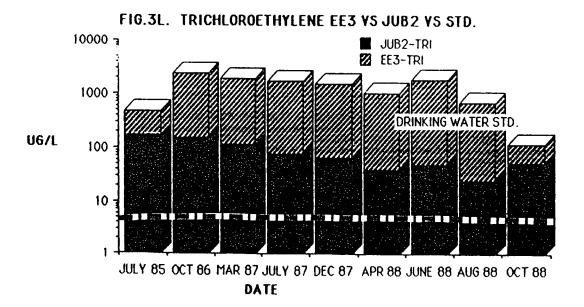


FIG.2. 1,1,1 TRICHLOROETHANE EE3 YS JUB2.

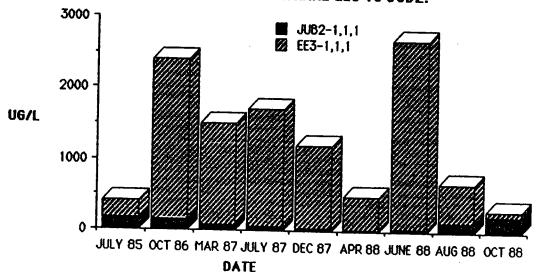
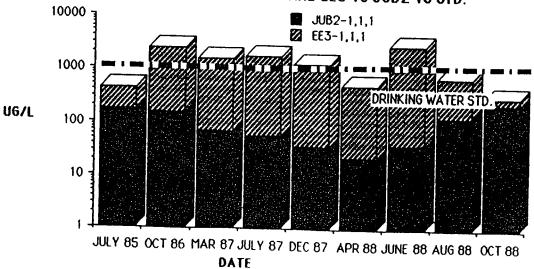


FIG.2L. 1,1,1 TRICHLOROETHANE EE3 VS JUB2 VS STD.



JOB No. 12532 DATE: 10/27/88

The state of the last

2012: 10/	/27/88		
Sample No. B1020GVO.WA1			
Surrogate	Matrix: Water	Analysis:	GC-PID
Compound	Percent		
4-Chlorotoluene	Recovery C	Commen t	Control Limits
C	100		
Sample No. 01			20 - 150
Surrogate	Matrix: Water (	Analysis:	GC-PID
Compound	Percent		
4-Chlorotoluene	Da	ommen t	Control Limits
C	88		
Sample No. 02@1/2	•		20 - 150
Surrogate	Matrix: Water A	nalysis:	GC-PID
Compound	Percent		
4-Chlorotoluene	Page -	nmen t	Control Limits
<i>!</i>	83		
			20 - 150

JOB No. 12532 DATE: 10/27/88

-07	4//88	
Sample No. B1020GVD.WA1	Matma	
Surrogate	Matrix: Water Analy	sis: GC-PID
Compound	Percent	
4-Chlorotoluene	Recovery Commen	Control t Limits
Cam.	100	
Sample No. 01	•	20 - 150
Surrogate	Matrix: Water Analys	sis: GC-PID
Compound	Percent	
4-Chlorotoluene	Recovery Comment	Control Limits
Sample No. 02@1/2	88	20 - 150
Surrogate	Matrix: Water Analys:	is: GC-PID
Compound	Percent	
4-Chlorotoluene	Recovery Comment	Control Limits
· · · · · · · · · · · · · · · · · · ·	83	
		20 - <sub>150</sub>

Consumation in

JOB No. 12532 DATE: 10/27/88

10)	/ <i>2</i> //88	
Sample No. B1020GVD.WA1	-	
Surrogate Compound	Matrix: Water Analysis: Percent	GC-HALL
4-Bromofluorobenzene 4-Chlorotoluene	Recovery Comment	Control Limits
Sample No. 01	101	76 - 121 20 - 150
Surrogate Compound	Matrix: Water Analysis:   Percent	
Bromochloromethane 4-Chlorotoluene	Recovery Comment	Control Limits
Sample No. 02@1/2	74	73 - 125 20 - 150
Surrogate Compound	Matrix: Water Analysis: G Fercent	
4-Bromofluorobenzene 4-Chlorotoluene	Recovery Comment	Control imits
46116	71 7	6 - 121 0 - 150



Certificate

Chemistry Microbiology, and Technical Services

CLIENT: Technico & Environmental Services

201 West 33rd Avenue Kennewick, WA 99336 ATTN: John Zillich LABORATORY NO. 12532

DATE: Nov. 10, 1988

Project No. 88.4

REPORT ON:

WATER

**SAMPLE** 

IDENTIFICATION:

Submitted 10/07/88 and identified as shown below:

1) Pasco Landfill Tippett Spray

2) Pasco Landfill Tippett Well Bead

TESTS PERFORMED AND RESULTS:

### parts per billion (ug/L)

,	_1_	2#	Method <u>Blank</u>
1,1-Dichloroethylene	<1.0	<2.0	<1.
1,1-Dichloroethane	<1.0	<2.0	<1.
trans-1,2-dichloroethylene	<1.0	<2.0	<1.
Chloroform	<1.0	<2.0	<1.
1,1,1-Trichloroethane	<1.0	<2.0	<1.
Trichloroethylene	<1.0	<2.0	<1.
Toluene	<1.0	<2.0	<1.
Xylene	<1.0	<2.0	<1.
Tetrachloroethylene	2.0	<2.0	<1.
Vinyl Chloride	<10.	<20.	<10.

### Key

< indicates "less than"

# Only 5 mls of Sample was purged due to sample froming.

Respectfully submitted.

Laucks Testing Laboratories, Inc.

J. M. Owens

JMO:laj





Certificate

Chemistry Microbiology, and Technical Services

Technico & Environmental Services

PAGE NO. 2 LABORATORY NO. 12532

### APPENDIX

Surrogate Recovery Quality Control Report

Attached are surrogate (chemically similar) compounds utilized in the analysis of organic compounds. The surrogates are added to every sample prior to extraction and analysis to monitor for matrix effects, purging efficiency, and sample processing errors. The control limits represent the 95% confidence interval established in our laboratory through repetitive analysis of these sample types.



### ' Technico & Enviro Services Co.

(509) 7357283

Suite 33

1776 Fowler

Richland, Wa. 99352

April 25, 1989

Mr. Cris Matthews Solid Waste Coordinator Environmental Quality Div. Washington Dept. of Ecology N. 461 Monroe Street, Suite 100 Spokane, WA 99205-1295

Subject: Groundwater Monitoring Results at the Pasco

Sanitary Landfill

Dear Mr. Matthews:

This letter provides you with the water quality monitoring results for the first quarter of 1989.

Sincerely,

John A. Zillich

JAZ/tq

Enclosure

cc: Larry Dietrich Larry Kamberg

SITE:PASCO			ELE'	VATION DATA SI	HEET			
DATE:3/89					¥4444444494444444444444444444444444444			•••••
	*****	MEASURED	TOP OF CASING	DEPTH TO	GROUND WATER	SPEC COND	ρН	TEMPC
WELL NO.	DATE	ΑT	ELEYATION	WATER	ELEVATION			
JUB CONTROL	3/20/89	TOP OF PYC	411.6	52.80	358.80	540	7.85	16.8
JUB 1	3/20/89	TOP OF PYC	417.1	68.41	348.69			
JUB 2	3/20/89	HOLE IN CAP	408.3	59.35	348.96		7.6	16.8
JUB 3	3/20/89	TOP OF PYC	420.4	72.55	347.85	<b> </b>		
JUB 4	3/20/89	TOP OF PYC	393.7	40.22	353.48		7.45	17.9
							*****	
EE 1	3/20/89	TOP OF PIPE	417.2	57.49	359.71			* * * * * * * * * * * * * * * * * * * *
EE 2	3/20/89	HOLE IN CAP	418.9	67.29	351.58	650	7.4	16.6
EE 3	3/20/89	HOLE IN CAP	416.8	65.60	351.17	680	7	16.8
EE 4	3/20/89	TOP OF PIPE	397.6	45.40	352.20			
EE 5	3/20/89	TOP OF PIPE	407.9	58.51	349.39			* * * * * * * * * * * * * * * * * * * *
EE 6	3/20/89	TOP OF PIPE	427.0	72.25	354.75			******************
EE 7	3/20/89	TOP OF PIPE	425.6	71.20	354.40	•••••	••••••	***** - * * * * * * * * * * * * * * * *
EE 8	3/20/89	TOP OF PIPE	428.4	71.55	356.85			**** **** ***********
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				•••••••••••••••••••••••••••••••••••••••	***************************************	• • • • • • • • • • • • • • • • • • • •
						!	•	******************

### TECHNICO & ENVIRO SERVICES CO. ANALYTICAL REPORT

CLIENT: PASCO LANDFILL

SAMPLED: 3/20/89 REPORTED: 4/20/89

LOCATION	DATE	CHLORIDE (MG/L)	AMMONIA (MG/L)	NITRITE (MG/L)	NITRATE (MG/L)
JUB CONRTOL	3/20/89	25.0		<0.05	7.8
EE3	3/20/89	32.5	<0.1	<0.05	0.8
JUB2	3/20/89	22.5	<0.1	<0.05	8.8
JUB4	3/20/89	22.5	<0.1	<0.05	7.6

### ANALYTICAL REPORT

Technico & Environmental 1776 Fowler, Suite 33 Richland, Washington 99352

ATTENTION: Mr. John Zillich

DATE SAMPLE RECEIVED: 3/21/89

MONTH COVERED: March, 1989 CLIENT NUMBER: TEC200

SAMPLED BY: Client FREQUENCY: As Requested DATE: March 31, 1989

IDENTIFICATION: Water Samples

SAMPLE NUMBER: CLIENT ID:	13551 JUB Control	13552 JUB4	13553 EE3	13554 JUB2	13555 EE2	UNITS
EPA 601 & 602						
Vinyl Chloride 1,1-Dichloroethane Chloroform 1,1,1-Trichloroethane Trichloroethylene Tetrachloroethylene Total Xylenes	<2 <2 <2 <2 <2 <2 <2 <2 <2 <2	<2 <2 <2 <2 <2 <2 4 9	<2 70 10 1000 1100 60 200	<2 8 15 180 200 8 <2	N/A <2 <2 15 10 4 <2	µg/1 µg/1 µg/1 µg/1 µg/1 µg/1
тос	9	12	21	10	N/A	mg/l

D.I. Blank - <1.00 46 mg/l Check Standard - 45.0 Acceptable Range - 35-57 Date Analyzed - 3/23/89 Analyst - DD

APPROVED BY:

BRUCE E. BROWN

LABORATORY MANAGER

104 West 31st Street Boise, Idaho 83714 (208) 336-1172

### LABORATORY REPORT

TECHNICO & ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON 99352

ATTENTION: JOHN ZILLICH SOURCE -: JUB CONTROL

DATE COLLECTED - - -03/20/89

TIME COLLECTED - - -

DATE RECEIVED - - - 03/21/89

DATE REPORTED - - - 04/05/89

SUBMITTED : JOHN ZILLICH

LAB SAMPLE NUMBER - 7250

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANALYST
TOTAL COLIFORM	** (1	03/21/89	KS
CHEMICAL OXYGEN DEMAND	11.0	03/31/89	RC
BARIUM	(O. I	04/04/89	DМ
COPPER	<i>&lt;0.01</i>	03/21/89	SH
IRON (DISS.)	0.05	03/28/89	SH
MANGANESE (DISS.)	<i>&lt;0.01</i>	03/21/89	SH
ZINC (DISS.)	0.031	03/28/89	SH

COMMENTS: \*\* NO COLIFORM BACTERIA WERE FOUND ON CULTURE PLATE.

This report for the exclusive use of the client(s) to whom it is addressed. Its disclosure to others for use in advertising is not authorized. These results refer only to the specific sample tested. Liability is limited to cost of analysis.

104 West 31st Street Boise, Idaho 83714 (208) 336-1172

### LABORATORY REPORT

TECHNICO & ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON

99352

ATTENTION: JOHN ZILLICH

SOURCE -: EE 3

DATE COLLECTED - - -03/20/89

TIME COLLECTED - - -

DATE RECEIVED - - - 03/21/89

DATE REPORTED - - - 04/05/89

SUBMITTED : JOHN ZILLICH

### LAB SAMPLE NUMBER - 7251

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS .	RESULTS	DATE ANALYZED	ANALYST
TOTAL COLIFORM	** <1	03/21/89	KS
CHEMICAL OXYGEN DEMAND	20.0	03/31/89	RC
BARIUM	0.2	04/04/89	DM
COPPER	<0.01	03/21/89	SH
IRON (DISS.)	7.90	03/28/89	SH
MANGANESE (DISS.)	1.13	03/21/89	SH
ZINC (DISS.)	0.069	03/28/89	SH

COMMENTS: \*\* NO COLIFORM BACTERIA WERE FOUND ON CULTURE PLATE.

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104 West 31st Street Boise, Idaho 83714 (208) 336-1172

### LABORATORY REPORT

TECHNICO & ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON 99352

ATTENTION: JOHN ZILLICH

SOURCE -: JUB 2

DATE COLLECTED - - -03/20/89

TIME COLLECTED - - -

DATE RECEIVED - - - 03/21/89

DATE REPORTED - - - 04/05/89

SUBMITTED : JOHN ZILLICH

LAB SAMPLE NUMBER - 7252

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANAL YST
TOTAL COLIFORM	** (1	03/21/89	KS
CHEMICAL OXYGEN DEMAND	4.0	03/31/89	RC
BARIUM	0.1	04/04/89	DM
COPPER	<0.01	03/21/89	SH
IRON (DISS.)	0.23	03/28/89	SH
MANGANESE (DISS.)	0.01	03/21/89	SH
ZINC (DISS.)	0.022	03/28/89	SH

COMMENTS: \*\* NO COLIFORM BACTERIA WERE FOUND ON CULTURE PLATE.

This report for the exclusive use of the client(s) to whom it is addressed. Its disclosure to others for use in advertising is not authorized. These results refer only to the specific sample tested. Liability is limited to cost of analysis.

Laboratury Makage

104 West 31st Street Boise, Idaho 83714 (208) 336-1172

### LABORATORY REPORT

TECHNICO & ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON 99352

ATTENTION: JOHN ZILLICH

SOURCE -: JUB 4

DATE COLLECTED - - -03/20/89

TIME COLLECTED - - -

DATE RECEIVED - - - 03/21/89

DATE REPORTED - - - 04/05/89

SUBMITTED : JOHN ZILLICH

### LAB SAMPLE NUMBER - 7253

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANALYST
TOTAL COLIFORM	** (1	03/21/89	KS
CHEMICAL OXYGEN DEMAND	13.0	03/31/89	RC
BARIUM	0.2	04/04/89	DM
COPPER	(O.OI	03/21/89	SH
IRON (DISS.)	0.31	03/28/89	SH
MANGANESE (DISS.)	⟨0.01	03/21/89	SH
ZINC (DISS.)	0.014	03/28/89	SH

COMMENTS: \*\* NO COLIFORM BACTERIA WERE FOUND ON CULTURE PLATE.

This report for the exclusive use of the client(s) to whom it is addressed. Its disclosure to others for use in advertising is not authorized. These results refer only to the specific sample tested. Liability is limited to cost of analysis.

Laboratory

104 West 31st Street Boise, Idaho 83714 (208) 336-1172

### LABORATORY REPORT

TECHNICO & ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON 99352

ATTENTION: JOHN ZILLICH

SOURCE -: EE 2

DATE COLLECTED - - -03/20/89

TIME COLLECTED - - -

DATE RECEIVED - - - 03/21/89

DATE REPORTED - - - 04/05/89

SUBMITTED : JOHN ZILLICH

LAB SAMPLE NUMBER - 7249

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANALYST
BARIUM	<i>(0.1</i>	04/04/89	DM
COPPER	(0.01	03/21/89	SH
IRON	0.22	03/28/89	SH
MANGANESE	(0,01	03/21/89	SH

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FIG.2. 1,1,1-TRICHLOROETHANE EE2 VS JUB2.

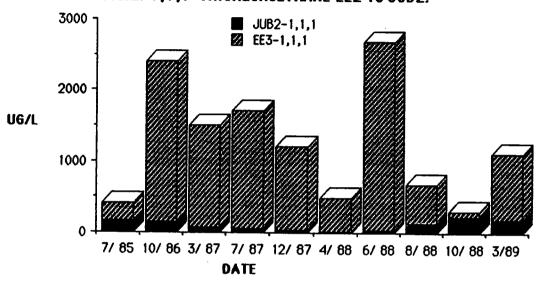
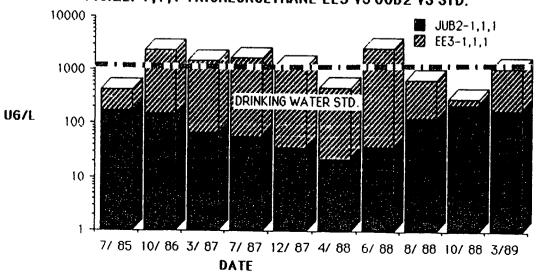
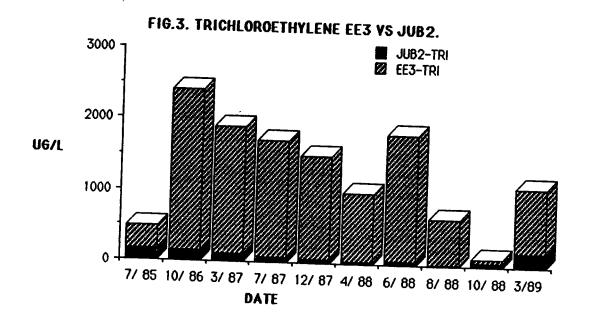


FIG.2L. 1,1,1 TRICHLOROETHANE EE3 VS JUB2 VS STD.





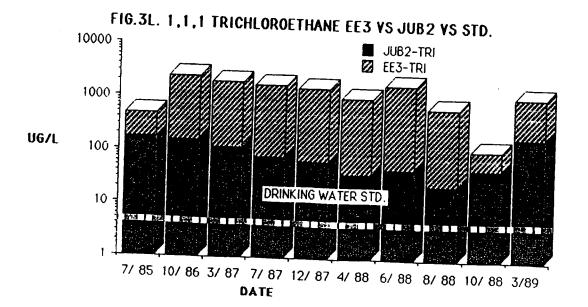


FIG.4. TETRACHLOROETHYLENE EE3 YS JUB2.

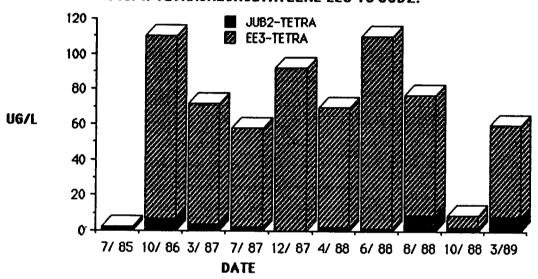
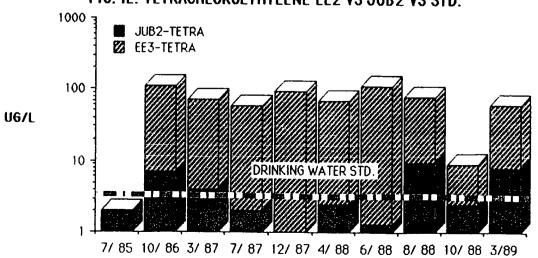


FIG.4L. TETRACHLOROETHYLENE EE2 YS JUB2 YS STD.



DATE

Technico & Enviro Services Co.

Fole Copy
Roy Comes

(509) 7357283

Suite 33

1776 Fowler

Richland, Wa. 99352

July 25, 1989

Mr. Cris Matthews Solid Waste Coordinator Environmental Quality Div. Washington Dept. of Ecology N. 461 Monroe Street, Suite 100 Spokane, WA 99205-1295

Groundwater Monitoring Results at the Pasco Subject:

Sanitary Landfill

Dear Mr. Matthews:

This letter provides you with the water quality monitoring results for the second quarter of 1989.

Sincerely,

Enclosure

cc: Larry Dietrich

Larry Kamberg

# PLF FIELD MEAS 6/3/89

		į <u>.</u>	\$	ROUND WATER				
SITE:PASOU			FIL	ELD DATA SHEE	Ţ			
DATE 6/3/89								
		MEASURED	TOP OF CASING	DEPTH TO	GROUND WATER	SPEC COND	pН	TEMP C
WELL NO.	DATE	AT	ELEVATION	WATER	ELEYATION			
JUB CONTROL	6/3/89	TOP OF PYC	411.6	52.00	359.60	540	7.2	200
JUB 1	6/3/89	TOP OF PYC	417.1	68.62	348.48			
JUB 2	6/3/89	HOLE IN CAP	408.3	59.50	348.81	600	7.4	17.6
JUB 3	6/3/89	TOP OF PYC	420.4	72.73	347.67			
JUB 4	6/3/89	TOP OF PYC	393.7	40.22	353.48	640	6.7	
ÉE 1	6/3/89	TOP OF PIPE	417.2	57.50	359.70			
EE 2 EE 3 EE 4	6/3/89	HOLE IN CAP	418.9	67.31	351.56	610	7.6	18.7
EE 3	6/3/89	HOLE IN CAP	416.8	65.56	351.21	735	7	17.9
EE 4	6/3/89	TOP OF PIPE	397.6	45.84	351.76			
EE 4 EE 5	6/3/89	TOP OF PIPE	407.9	54.51	353.39		**	
EE 6	6/3/89	TOP OF PIPE	427.0	72.35	354.65			
EE 7	6/3/89	TOP OF PIPE	425.6	71.49	354.11			
EE 8	6/3/89	TOP OF PIPE	428.4	74.12	354.28			

104 West 31st Street Boise, Idaho 83714 (208) 336-1172

#### LABORATORY REPORT

TECHNICO*ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON ATTENTION: JOHN ZILLICH SOURCE -: EE3	99336	DATE COLLECTED - TIME COLLECTED - DATE RECEIVED - DATE REPORTED - SUBMITTED : JOHN	 06/07/89 06/29/89
	LAB SAMPLE	NUMBER - 8575	
Results reported unless noted: (Chemistry A	Analysis as <b>a</b> g/l) (Bacteria a	s organisms/100 ml)	
ANALYSIS	RESULTS	DATE ANALYZED	ANALYST
CHEMICAL OXYGEN DEMAND	38.O	06/09/89	RC
BARIUM	O,I	06/29/89	DM
COPPER	(O. OI	06/23/89	SH
IRON (DISS.)	0.02	06/23/89	SH
MANGANESE (DISS.)	1.05	06/23/89	SH
ZINC (DISS.)	0.008	06/26/89	SH
This report for the exclusive use of the ci is not authorized. These results refer only			

104 West 31st Street Boise, Idaho 83714 (208) 336-1172

#### LABORATORY REPORT

TECHNICO\*ENVIRO SERVICE
1776 FOWLER, SUITE 33
RICHLAND, WASHINGTON 99

99336

DATE COLLECTED - - -06/03/89
TIME COLLECTED - - DATE RECEIVED - - - 06/07/89
DATE REPORTED - - - 06/29/89
SUBMITTED : JOHN ZILLICH

ATTENTION: JOHN ZILLICH

SOURCE -: JUB 2

LAB SAMPLE NUMBER - 8576

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	<b>ANALYST</b>
CHEMICAL OXYGEN DEMAND	6.0	06/09/89	RC
BARIUM	<0.1	06/29/89	DM
COPPER	(O.OI	06/23/89	SH
IRON (DISS.)	0.01	06/23/89	SH
MANGANESE (DISS.)	(O.O1	06/23/89	SH
ZINC (DISS.)	0.006	06/26/89	SH

This report for the exclusive use of the client(s) to whom it is addressed. Its disclosure to others for use in advertising is not authorized. These results refer only to the specific sample tested. Liability is limited to cost of analysis.

104 West 31st Street Boise, Idaho 83714 (208) 336-1172

#### LABORATORY REPORT

TECHNICO\*ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON

99336

DATE COLLECTED - - -06/03/89 TIME COLLECTED - - -DATE RECEIVED - - - 06/07/89 DATE REPORTED - - - 06/29/89

SUBMITTED : JOHN ZILLICH

ATTENTION: JOHN ZILLICH

SOURCE -: JUB 4

LAB SAMPLE NUMBER - 8577

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANAL YST
CHEMICAL OXYGEN DEMAND	10.0	06/09/89	RC
BARIUM	O,I	06/29/89	DM
COPPER	(0.01	06/23/89	SH
IRON (DISS.)	(0.01	06/23/89	SH
MANGANESE (DISS.) '	(O.OI	06/23/89	SH
ZINC (DISS.)	0.009	06/26/89	SH

This report for the exclusive use of the client(s) to whom it is addressed. Its disclosure to others for use in advertising is not authorized. These results refer only to the specific sample tested. Liability is limited to cost of analysis.

104 West 31st Street Boise, Idaho 83714 (208) 336-1172

## LABORATORY REPORT

TECHNICO\*ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON

99336

DATE COLLECTED - - -06/03/89 TIME COLLECTED - - -DATE RECEIVED - - - 06/07/89

DATE REPORTED - - - 06/29/89

DATE REPORTED - - - 06/29/89

SUBMITTED : JOHN ZILLICH

ATTENTION: JOHN ZILLICH SOURCE -: JUB CONTROL

LAB SAMPLE NUMBER - 8578

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANAL YSIS	RESULTS	DATE ANALYZED	ANALYST
CHEMICAL OXYGEN DEMAND	11.0	06/09/89	RC
BARIUM	<i>&lt;0.1</i>	06/29/89	DM
COPPER	0.01	06/23/89	SH
IRON (DISS.)	0.03	06/23/89	SH
MANGANESE (DISS.)	<0.01	06/23/89	SH
ZINC (DISS.)	0.011	06/26/89	SH

This report for the exclusive use of the client(s) to whom it is addressed. Its disclosure to others for use in advertising is not authorized. These results refer only to the specific sample tested. Liability is limited to cost of analysis.

Aboratory Manages

104 W. 31st Street Boise, Idaho 83714 (208)336-1172

TBCHNICO - BNVIRO SBRVICB	DATE COLLECTED:	06/03/89
1776 FOWLBR, SUITE 33	DATE RECEIVED:	06/07/89
RICHLAND, WASHINGTON 99352	DATE REPORTED:	06/19/89

ATTENTION: JOHN ZILLICH

SOURCE: JUB 2

# LABORATORY SAMPLE NO. - 8581

ANALYSIS	RESULTS (PPb)	
Vinyl Chlorida	<2	
l, l Dichloroethane	39.7	
Chloroform	16.1	
1,1,1 Trichloroethane	<b>85.</b> 1	
Trichloroethene	107.0	
Tetraca ! oroethene	5.9	
Total Kylene	<2	
l,l Dichloroethene	16.3	
trans 1,2 Dichloroethene	<2	
Toluene	<2	
- 在你知道我就知道我想到我们的我们就是我们就就是我们有知识。	<b>"我,我就我们还要我们们还是是你们们的是我们</b>	

Analyst: Dale Myers

Laboratory Manager

Note: The portable bladder pump used to sample SUB Control + UUB 4 had a leak and was inoparable. These wells were sampled with an

104 W. 31st Street Boise, Idaho 83714 (208)336-1172

TECHNICO - ENVIRO SERVICE	DATE COLLECTED:	06/03/89
1776 FOWLER, SUITE 33	DATE RECEIVED:	06/07/89
RICHLAND, WASHINGTON 99352	DATE REPORTED:	06/19/89

ATTENTION: JOHN ZILLICH

SOURCE: EE2

# LABORATORY SANPLE NO. - 8579

ANALYSIS	RESULTS (PPb)
Vinyl Chloride	<i>&lt;2</i>
1,1 Dichloroethane	20.2
Chloroform	2.3
1,1,1 Trichloroethane	50.5
Trichloroethene	52.0
Tetrachloroethene	30.6
Total Xylene	<i>&lt;2</i>
1,1 Dichloroethene	10.2
trans 1,2 Dichloroethene	<i>(2</i>
Toluene	<i>&lt;2</i>

Analyst: Dale Myers

Lappatory Manager

104 W. 31st Street Boise, Idaho 83714 (208)336-1172

TECHNICO - ENVIRO SERVICE	DATE COLLECTED:	06/03/89
1776 FONLER, SUITE 33	DATE RECEIVED:	06/07/89
RICHLAND, WASHINGTON 99352	DATE REPORTED:	06/19/89

ATTENTION: JOHN ZILLICH

SOURCE: BE3

# LABORATORY SAMPLE NO. - 8580

ANALYSIS	RESULTS (PPb)
Vinyl Chloride	7.82
1,1 Dichloroethane	213.0
Chloroform	35.0
1,1,1 Trichloroethane	591.0
Trichloroethene	684.0
Tetrachloroetheme	45.2
Total Xylene	477.0
1,1 Dichloroethene	120.0
trans 1,2 Dichloroethene	<i>&lt;2</i>
foluene	996.0
**********	

Analyst: Dale Myers

Languatory Manager

# TECHNICO & ENVIRO SERVICES CO. ANALYTICAL REPORT

CLIENT. PASCO LANDFILL SAMPLED: 6/3/89

SAMPLED: 6/3/89 REPORTED: 7/20/89

LOCATION	DATE	CHLORIDE	AMMONIA	NITRITE	,
JUB CONRTOL	6/3/89	25.5	<0.1	<0.05	· · · · · · · · · · · · · · · · · · ·
EE3	6/3/89	42.5	<0.1	<0.05	
JUB2	6/3/89	30.0	<0.1	<0.05	
JUB4	6/3/89	27.0	<0.1	<0.05	

F16.2. 1,1,1-TRICHLOROETHANE EE2 YS JUB2.

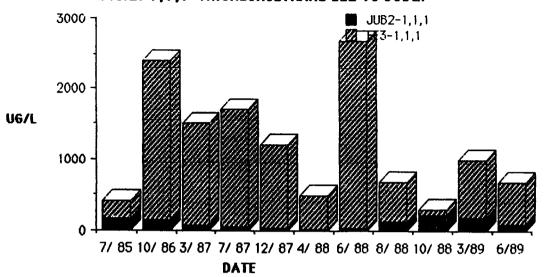
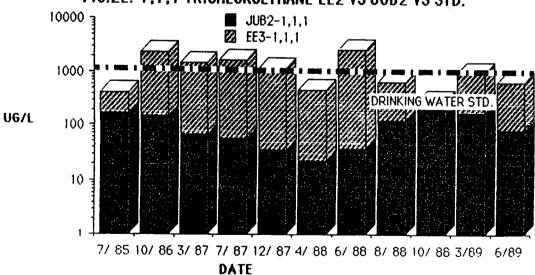


FIG.2L. 1,1,1 TRICHLOROETHANE EE2 VS JUB2 VS STD.





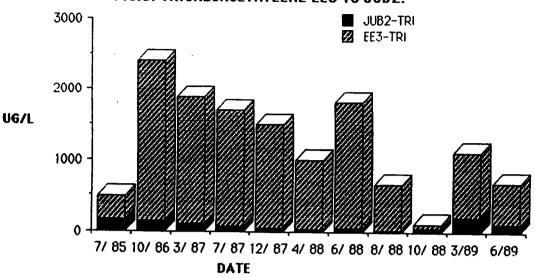


FIG.3L. TRICHLOROETHYLENE EE3 VS JUB2 VS STD.

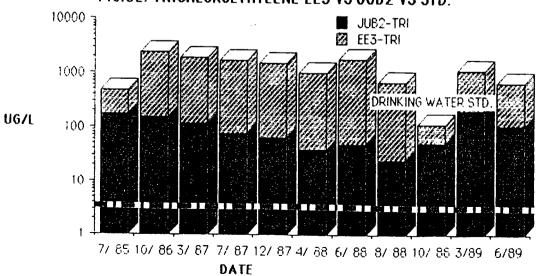


FIG.4. TETRACHLOROETHYLENE EE3 VS JUB2.

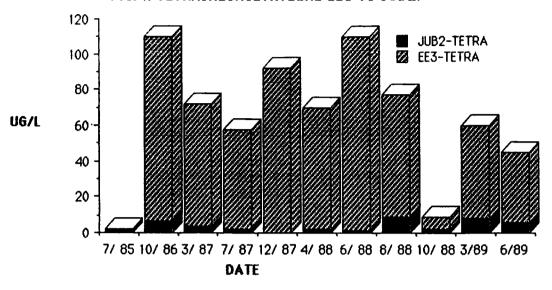
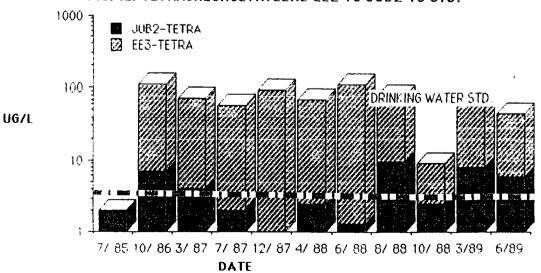


FIG.4L. TETRACHLOROETHYLENE EE2 VS JUB2 VS STD.



(509) 735-7283

Suite 33

1776 Fowler

Richland, WA 99352

October 30, 1989

Mr. Cris Matthews Solid Waste Coordinator Environmental Quality Div. Washington Dept. of Ecology N. 461 Monroe Street, Suite 100 Spokane, WA 99205-1295

Subject: Groundwater Monitoring Results at the Pasco

Sanitary Landfill

Dear Mr. Matthews:

This letter provides you with the water quality monitoring results for wells requiring annual sampling plus the routine 3rd quarter sampling results.

Sincerely,

JAZ: tg

enclosures

cc: Larry Dietrich

Larry Kamberg



Analytical Chemists & Consultants

333 Ninth Ave. North Seattle, Wa 98109-5187 (206) 621-6490

# ORGANICS ANALYSIS DATA SHEET - METHOD 8150

Lab Sample ID: 1004MB Matrix: Water Client Sample ID : Method Blank

Client: Technical Env. Services

Project No: 88-21

VTSR: 10/03/89

Date Extracted: 10/4/89
Date Analyzed: 10/11/89
Volume Extracted: 100 ml.
Conc/Dil Factor: 1 to 5

Data Release Authorized:

Report prepared on MAC:C C.P.G. 10/25/89

CAS Number		μg/L
93-72-1	Silvex (2,4,5-TP)	0.2 U
93-76-5	2,4,5-T	2.0 U
88-85-7	Dinoseb	0.4 U
1918-00-9	Dicamba	0.3 Ú
120-36-5	Dichlorprop	1.0 U
94-75-7	2,4-D	2.0 U
	2,4-DB	2.0 U
94-82-6	Dalapon	40 U
75-99-0	MCPP	250 U
7085-19-0	MCPA	NA NA
94-74-6	MOLAL	<u> </u>

* Herbicide	Surrogate	Recovery	
2 3-Dichloro			

- U Indicates compound was analyzed for but not detected at the given detection limit.
- J Indicates an estimated value when the result is less than the calculated detection limit.
- NA Indicates compounds were not analyzed for.



Analytical Chemists & Consultants

1.1.1.2

333 Ninth Ave. North Seattle, Wa 98109-5187 (206) 621-6490

# ORGANICS ANALYSIS DATA SHEET - METHOD 8150

Lab Sample ID: 3774 D

Matrix: Water

Client Sample ID: EE5

Client: Technical Env. Services

Project No: 88-21 VTSR: 10/03/89

Date Extracted: 1 0/4/89
Date Analyzed: 1 0/1 1/89
Volume Extracted: 100 ml.
Conc/Dil Factor: 1 to 5

Data Release Authorized:

Report prepared on MAC:C C.P.G. 10/25/89

CAS Number		μg/L·
93-72-1	Silvex (2,4,5-TP)	0.2 U
93-76-5	2,4,5-T	2.0 U
88-85-7	Dinoseb	0.4 U
1918-00-9	Dicamba	0.3 U
120-36-5	Dichlorprop	1.0 U
94-75-7	2,4-D	2.0 U
94-82-6	2,4-DB	2.0 U
75-99-0	Dalapon	40 U
7085-19-0	MCPP	250 U
94-74-6	MCPA	NA

*	Herbicide	Surrogate	Recover	У	
2	3-Dichloro	phenoxyac	etic aci	d	109%

- U Indicates compound was analyzed for but not detected at the given detection limit.
- J Indicates an estimated value when the result is less than the calculated detection limit.
- NA Indicates compounds were not analyzed for.



Analytical Chemists & Consultants

333 Ninth Ave. North Seattle. Wa 98109-5187 (206) 621-6490

## ORGANICS ANALYSIS DATA SHEET - METHOD 8150

Lab Sample ID: 3774 A

Matrix: Water

Client Sample ID: EE2

Client: Technical Env. Services

Project No: 88-21 VTSR: 10/03/89

Date Extracted: 1 0 / 4 / 8 9
Date Analyzed: 1 0 / 1 1 / 8 9
Volume Extracted: 100 ml.
Conc/Dil Factor: 1 to 5

Data Release Authorized:

Report prepared on MAO:O O.P.Q. 10/25/08

CAS Number		μg/L
93-72-1	Silvex (2,4,5-TP)	0.2 U
93-76-5	2,4,5-T	2.0 U
88-85-7	Dinoseb	0.4 U
1918-00-9	Dicamba	0.3 U
120-36-5	Dichlorprop	1.0 U
94-75-7	2,4-D	2.0 U
94-82-6	2,4-DB	2.0 11
75-99-0	Dalapon	40 U
7085-19-0	MCPP	250 U
94-74-6	MCPA	NA

# \* Herbicide Surrogate Recovery 2,3-Dichlorophenoxyacetic acid 112%

- U Indicates compound was analyzed for but not detected at the given detection limit.
- J Indicates an estimated value when the result is less than the calculated detection limit.
- NA Indicates compounds were not analyzed for.



Analytical Chemists & Consultants

333 Ninth Ave. North Seattle, Wa 98109-5187 (206) 621-6490

# ORGANICS ANALYSIS DATA SHEET - METHOD 8150

Lab Sample ID: 3774 B

Matrix: Water

Client Sample ID : EE3

Client: Technical Env. Services

Project No: 88-21

VTSR: 10/03/89

Date Extracted: 10/4/89
Date Analyzed: 10/11/89
Volume Extracted: 100 ml.
Conc/Dil Factor: 1 to 5

Data Release Authorized.

Report prepared on MAC:C C.P.G. 10/25/89

CAS Number		μg/L
93-72-1	Silvex (2,4,5-TP)	0.2 U
93-76-5	2,4,5-T	2.0 U
88-85-7	Dinoseb	0411
1918-00-9	Dicamba	0.3 U
120-36-5	Dichlorprop	1.0 U
94-75-7	2,4-D	2.0 U
94-82-6	2,4-DB	2.0 U
75-99-0	Dalapon	40 U
7085-19-0	MCPP	250 U
94-74-6	MCPA	NA

# \* Herbicide Surrogate Recovery 2,3-Dichlorophenoxyacetic acid 113%

- U Indicates compound was analyzed for but not detected at the given detection limit.
- J Indicates an estimated value when the result is less than the calculated detection limit.
- NA Indicates compounds were not analyzed for.



Analytical Chemists & Consultants

333 Ninth Ave. North Seattle, Wa 98109-5187 (206) 621-6490

## ORGANICS ANALYSIS DATA SHEET - METHOD 8150

Lab Sample ID: 3774 C

Matrix: Water

Client Sample ID: EE4

Client: Technical Env. Services

Project No: 88-21 VTSR: 10/03/89

Date Extracted: 1 0/4/8 9
Date Analyzed: 1 0/11/8 9
Volume Extracted: 100 ml.
Conc/Dil Factor: 1 to 5

Data Release Authorized:

Report prepared on MAC:C C.P.G. 10/25/89 /

CAS Number	·	μg/L
93-72-1	Silvex (2,4,5-TP)	0.2 U
93-76-5	2,4,5-T	2.0 U
88-85-7	Dinoseb	0.4 U
1918-00-9	Dicamba	0.3 U
120-36-5	Dichlorprop	1.0 U
94-75-7	2,4-D	2,0 U
94-82-6	2,4-DB	2.0 U
75-99-0	Dalapon	40 U
7085-19-0	MCPP	250 U
94-74-6	MCPA	NA

# \* Herbicide Surrogate Recovery 2,3-Dichlorophenoxyacetic acid 109%

- U Indicates compound was analyzed for but not detected at the given detection limit.
- J Indicates an estimated value when the result is less than the calculated detection limit.
- NA Indicates compounds were not analyzed for.

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MTE:9/89							•	
		MEASURED	TOP OF CASING	DEP TH TO	GROUND WATER	SPEC COND	рН .	TEHH C
WELL NO.	DATE	AT	ELEVATION	WATER	ELEVATION	: !		
JUB CONTROL	9/28/89	TOP OF PYC	411.6		haranaga a a companya a a companya		7 45.	13.9
<u>JUB 1</u>	9/29/89	TOP OF PYC	417.1	70.00	from markets at the contract			
JUB 2	9/28/89	HOLE IN CAP	408.3		to the second se		€ 81	17-4
JUB 3	9/29/89	TOP OF PYC	420.4			}		_
JUB 4	9/28/89	TOP OF FYC	393.7	41.75	351 95	: 663	7.5	17.4
	-						!	
E 1	9/29/89	TOP OF PIFE	417.2			·	: :	
E2	9/28/89	HOLE IN CAP	418.9				6.9	17.3
E3	9/28/89	HOLE IN CAP	416.8		Interes - to a contract to the	. •	6.7]	190
E 4	9/29/89	TOP OF PIPE	397.6				į	
<u> </u>	9/29/89	TOP OF PIPE	407.9	many transport of the second second second second	transport and the contract of			
E 6	9/29/89	TOP OF PIPE	427.0		[ · · · · · · · · · · · · · · · · · · ·		!	
臣7	9/29/89	TOP OF PIPE	425.6				:	
臣8	9/29/89	TOP OF PIPE	428.4	74.64	353.76			
	· · · · · · · · · · · · · · · · · · ·				v 40.40			



10 October, 1989

#### ANALYTICAL RESOURCES INCORPORATED

Analytical Chemists & Consultants

333 Ninth Ave. North Seattle, Wa 98109-5187 (206) 621-6490

John Zillie Technical Environmental Services 1776 Fowler Suite 33 Richland, WA 99352

RE: Project ID:88-4; Samples submitted for TOC analysis; ARI Job No. 3775.

Dear Mr. Zillie:

Please find enclosed the TOC data for the above referenced project.

If you have any questions or require additional information, please do not hesitate to call at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC

Catherine P. Greer Project Coordinator

cpg

enclosures cc: file #03775

104 West 31st Street Boise, Idaho 83714 (208) 336-1172

#### LABORATORY REPORT

TECHNICO AND ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON 99352

ATTENTION: JOHN ZILLICH

SOURCE -: JUB 4

DATE COLLECTED - - -09/28/89 TIME COLLECTED - - -9:40 AM DATE RECEIVED - - - 09/29/89 DATE REPORTED - - 10/13/89 SUBMITTED : JOHN ZILLICH

LAB SAMPLE NUMBER - 10589

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANALYST
TOTAL COLIFORM	** (1	09/29/89	KS
CHEMICAL OXYGEN DEMAND	(5.0	10/05/89	KS
CHLORIDE	26.0	09/29/89	DM
NITRATE as N	6.77	09/29/89	DM
SULFATE as N	61.9	09/29/89	DM
CONDUCTIVITY (umhos/cm)	663.0	10/10/89	JR
AMMONIA as N	(0.05	10/13/89	KS
BARIUM	⟨0.1	10/04/89	DM
COPPER	(0.01	10/10/89	SH
IRÓN	0.04	10/10/89	SH
MANGANESE	(0.01	10/10/89	SH
IRON (DISS.)	0.01	10/10/89	SH
MANGANESE (DISS.)	<0.01 <0.01	10/10/89	SH
ZINC (DISS.)	0.014	10/10/89	SH
ZITTO (ZOLOGO)	•	•	

COMMENTS: \*\* NO COLIFORM BACTERIA WERE FOUND ON CULTURE PLATE. NITRITE as N - -: <0.5

This report for the exclusive use of the client(s) to whom it is addressed. Its disclosure to others for use in advertising is not authorized. These results refer only to the specific sample tested and no interpretation is intended or implied.

104 West 31st Street Boise, Idaho 83714 (208) 336-1172

#### LABORATORY REPORT

TECHNICO AND ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON 99352

ATTENTION: JOHN ZILLICH

SOURCE -: JUB 2

DATE COLLECTED - - - 09/28/89

TIME COLLECTED - - -

DATE RECEIVED - - - 09/29/89

DATE REPORTED - - - 10/13/89

SUBMITTED : JOHN ZILLICH

LAB SAMPLE NUMBER - 10590

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANAL YST
CHEMICAL OXYGEN DEMAND	33.0	10/05/89	KS
CHLORIDE	36.3	10/13/89	KS
NITRATE as N	6.94	10/05/89	KS
SULFATE	65.6	10/13/89	KS
CONDUCTIVITY (umhos/cm)	663.0	10/10/89	JR
AMMONIA as N	<i>&lt;0.05</i>	10/13/89	KS
BARIUM	<i>(0.1</i>	10/12/89	DM
COPPER	⟨0.01	10/10/89	SH
IRON	0.02	10/10/89	SH
MANGANESE	0.01	10/10/89	SH
IRON (DISS.)	0.02	10/10/89	SH
MANGANESE (DISS.)	0.01	10/10/89	SH
ZINC (DISS.)	0.019	10/10/89	SH

COMMENTS: NITRITE as N - -: <0.5

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#### LABORATORY REPORT

TECHNICO AND ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON 99352

ATTENTION: JOHN ZILLICH

SOURCE -: BE 3

DATE COLLECTED - - -09/28/89

TIME COLLECTED - - -

DATE RECEIVED - - - 09/29/89

DATE REPORTED - - - 10/13/89

SUBMITTED : JOHN ZILLICH

## LAB SAMPLE NUMBER - 10591

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANAL YST
TOTAL COLIFORM	** (1	09/29/89	KS
CHEMICAL OXYGEN DEMAND	13.0	10/05/89	KS
CHLORIDE	39.2	09/29/89	DM
NITRATE as N	0.29	09/29/89	DМ
SULFATE	65.2	09/29/89	DM
CONDUCTIVITY (umhos/cm)	829.0	10/10/89	JR
AMMONIA as N	<i>(0.05</i>	10/13/89	KS
BARIUM	0.1	10/04/89	DM
COPPER	(O.OI	10/10/89	SH
IRON	10.8	10/10/89	SH
MANGANESE	1.12	10/10/39	SH
IRON (DISS.)	0.12	10/10/39	SH
MANGANESE (DISS.)	1.04	10/10/89	SH
ZINC (DISS.)	0.026	10/10/89	SH

COMMENTS: \*\* NO COLIFORM BACTERIA WERE FOUND ON CULTURE PLATE. NITRITE as N - -: (0.5

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104 West 31st Street Boise, Idaho 83714 (208) 336-1172

#### LABORATORY REPORT

TECHNICO AND	ENVIRO SI	RVICE
1776 FOWLER,	SUITE 33	
RICHLAND, WAS	HINGTON	99352

ATTENTION: JOHN ZILLICH

SOURCE -: EE 2

DATE COLLECTED - - -09/28/89 TIME COLLECTED - - -2:37 PM DATE RECEIVED - - - 09/29/89 DATE REPORTED - - - 10/11/89

SUBMITTED : JOHN ZILLICH

#### LAB SAMPLE NUMBER - 10593

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANAL YST
BARIUM	(0.1	10/04/89	DM
COPPER	⟨0.01	10/10/89	SH
IRON	0.06	10/10/89	SH
MANGANESE	⟨0.01	10/10/89	SH

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#### LABORATORY REPORT

TECHNICO AND ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON 99352

ATTENTION: JOHN ZILLICH

SOURCE -: WSW

DATE COLLECTED - - -09/28/89

TIME COLLECTED - - -

DATE RECEIVED - - - 10/05/89

DATE REPORTED - - - 10/12/89

SUBMITTED : JOHN ZILLICH

#### LAB SAMPLE NUMBER - 10747

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANALYST
BARIUM	⟨0.1	10/12/89	DM
COPPER	⟨0,01	10/10/89	SH
IRON	0.02	10/10/89	SH
MANGANESE	<0.01	10/10/89	SH

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## LABORATORY REPORT

TECHNICO AND ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON 99352

ATTENTION: JOHN ZILLICH

SOURCE -: EE8

DATE COLLECTED - - -09/28/89
TIME COLLECTED - - -10:40 AM
DATE RECEIVED - - - 10/05/89
DATE REPORTED - - - 10/12/89
SUBMITTED : JOHN ZILLICH

## LAB SAMPLE NUMBER - 10746

Results reported unless noted: (Chemistry Analysis as ag/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANALYST
BARIUM	0.1	10/12/89	DM
COPPER	<0.01	10/10/89	SH
IRON	0.02	10/10/89	SH
MANGANESE	<0.01	10/10/89	SH

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104 West 31st Street' Boise, Idaho 83714 (208) 336-1172

#### LABORATORY REPORT

TECHNICO AND	ENVIRO SERVICE	
1776 FOWLER,	SUITE 33	
PICHTAND WASI	TINGTON 0025	9

ATTENTION: JOHN ZILLICH

SOURCE -: BE7

DATE COLLECTED - - -09/28/89
TIME COLLECTED - - -9:11 AM
DATE RECEIVED - - - 10/05/89
DATE REPORTED - - - 10/12/89
SUBMITTED : JOHN ZILLICH

## LAB SAMPLE NUMBER - 10745

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	<b>ANALYST</b>
BARIUM	0.1	10/12/89	DM
COPPER	(0.01	10/10/89	SH
IRON	0.22	10/10/89	SH
MANGANESE	0.01	10/10/89	SH

This report for the exclusive use of the client(s) to whom it is addressed. Its disclosure to others for use in advertising is not authorized. These results refer only to the specific sample tested and no interpretation is intended or implied.

104 West 31st Street Boise, Idaho 83714 (208) 336-1172

#### LABORATORY REPORT

TECHNICO AND ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON 99352

ATTENTION: JOHN ZILLICH

SOURCE -: BE6

DATE COLLECTED - - -09/28/89

TIME COLLECTED - - -

DATE RECEIVED - - - 10/05/89

DATE REPORTED - - - 10/12/89

SUBMITTED : JOHN ZILLICH

## LAB SAMPLE NUMBER - 10744

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANALYST
BARIUM	0.1	10/12/89	DM
COPPER	0.03	10/10/89	SH
IRON	2.48	10/10/89	SH
MANGANESE	0.10	10/10/89	SH

This report for the exclusive use of the client(s) to whom it is addressed. Its disclosure to others for use in advertising is not authorized. These results refer only to the specific sample tested and no interpretation is intended or implied.

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#### LABORATORY REPORT

TRCHNICO AND ENVIRO SERVICE	DATE COLLECTED09/28/89
1776 FOWLER, SUITE 33	TIME COLLECTED2:40 PM
RICHLAND, WASHINGTON 99352	DATE RECEIVED 10/05/89
	DATE REPORTED 10/12/89
ATTENTION: JOHN ZILLICH	SUBMITTED : JOHN ZILLICH

SOURCE -: EE5

LAB SAMPLE NUMBER - 10743

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANALYST
BARIUM	0.1	10/12/89	DM
COPPER	⟨0.01	10/10/89	SH
IRON	0.01	10/10/39	SH
MANGANESE	⟨0.01	10/10/89	SH

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104 West 31st Street Boise, Idaho 83714 (208) 336-1172

#### LABORATORY REPORT

TRCHNICO AND ENVIRO SERVICE 1776 FOWLER, SUITE 33 RICHLAND, WASHINGTON

99352

ATTENTION: JOHN ZILLICH

SOURCE -: EE4

DATE COLLECTED - - -09/28/89

TIME COLLECTED - - -

DATE RECEIVED - - - 10/05/89

DATE REPORTED - - - 10/12/89

SUBMITTED : JOHN ZILLICH

#### LAB SAMPLE NUMBER - 10742

Results reported unless noted: (Chemistry Analysis as mg/l) (Bacteria as organisms/100 ml)

ANALYSIS	RESULTS	DATE ANALYZED	ANAL YST
BARIUM	0.1	10/12/89	DM
COPPER	(0.01	10/10/89	SH
IRON	0.01	10/10/89	SH
MANGANESE	0.01	10/10/89	SH

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TECHNICO - ENVIRO SERVICE	DATE COLLECTED:	09/28/89
1776 FOWLER, SUITE 33	TIME COLLECTED:	12:30 PM
RICHLAND, WASHINGTON 99352	DATE RECEIVED:	09/29/89
	DATE REPORTED:	10/26/89

ATTENTION: JOHN ZILLICH

SOURCE: JUB 2

#### LABORATORY SAMPLE NO. - 10592

ANALYSIS	RESULTS (ppb)	
Vinyl Chloride	⟨2	
1,1 Dichloroethane	73.8	
Chloroform	33.1	
1,1,1 Trichloroethane	134.0	
Trichloroe <b>then</b> e	166.0	
Tetrachloroethene	9.8	
Total Xylene	(2	
1,1 Dichloroethene	37.3	•
trans 1,2 Dichloroethene	(2	
Toluene	(2	
=======================================	=======================================	========

Analyst: Dale Myers

horatory Manager

104 W. 31st Street Boise, Idaho 83714 (208)336-1172

TECHNICO - ENVIRO SERVICE	DATE COLLECTED:	10/03/89
1776 FOWLER, SUITE 33	TIME COLLECTED:	
RICHLAND, WASHINGTON 99352	DATE RECEIVED:	10/04/89
•	DATE REPORTED:	10/26/89

ATTENTION: JOHN ZILLICH

SOURCE: BE 8

# LABORATORY SAMPLE NO. - 10718

ANALYSIS	RESULTS (ppb)	
Vinyl Chloride	(2	
1,1 Dichloroethane	(2	
Chloroform	(2	
1,1,1 Trichloroethane	<b>(2</b> )	
Trichloroethene	(2	
Tetrachloroethene	(2	
Total Xylene	(2	
1,1 Dichloroethene	(2	
trans 1,2 Dichloroethene	(2	
Toluene	(2	
=======================================	=======================================	=======

Analyst: Dale Myers

104 W. 31st Street Boise, Idaho 83714 (208)336-1172

TECHNICO - ENVIRO SERVICE	DATE COLLECTED:	10/03/89
1776 FOWLER, SUITE 33	TIME COLLECTED:	
RICHLAND, WASHINGTON 99352	DATE RECEIVED:	10/04/89
	DATE REPORTED:	10/26/89

ATTENTION: JOHN ZILLICH .

SOURCE: BE 7

## LABORATORY SAMPLE NO. - 10717

ANALYSIS	RESULTS (ppb)	
Vinyl Chloride	<i>(2</i>	
1,1 Dichloroethane	(2	
Chloroform	<i>(2</i>	
1,1,1 Trichloroethane	<i>(2</i>	
Trichloroethene	(2	
Tetrachloroethene	<i>(2</i>	
Total Xylene	(2	
1,1 Dichloroethene	(2	
trans 1,2 Dichloroethene	⟨2	
Toluene	⟨2	
	=======================================	=

Analyst: Dale Myers

104 W. 31st Street Boise, Idaho 83714 (208)336-1172

TECHNICO - ENVIRO SERVICE	DATE COLLECTED:	10/03/89
1776 FOWLER, SUITE 33	TIME COLLECTED:	•
RICHLAND, WASHINGTON 99352	DATE RECEIVED:	10/04/89
•	DATE REPORTED:	10/26/89

ATTENTION: JOHN ZILLICH

SOURCE: EE 6

# LABORATORY SAMPLE NO. - 10716

ANALYSIS	RESULTS (ppb)	
Vinyl Chloride	(2	
1,1 Dichloroethane	<i>(2</i>	
Chloroform	(2	
1,1,1 Trichloroethane	(2	
Trichloroethene	<i>(2</i>	
Tetrachloroethene	<i>(2</i>	
Total Xylene	(2	
1,1 Dichloroethene	<i>(2</i>	
trans 1,2 Dichloroethene	<i>(2</i>	
Toluene	<i>(2</i>	

Analyst: Dale Myers

noratory Manager

104 W. 31st Street Boise, Idaho 83714 (208)336-1172

TRCHNICO - ENVIRO SERVICE	DATE COLLECTED:	10/03/89
1776 FOWLER, SUITE 33	TIME COLLECTED:	• •
RICHLAND, WASHINGTON 99352	DATE RECEIVED:	10/04/89
	DATE REPORTED:	10/26/89

ATTENTION: JOHN ZILLICH

SOURCE: EE 5

## LABORATORY SAMPLE NO. - 10715

ANAL YSIS	RESULTS (ppb)	
Vinyl Chloride	(2	
1,1 Dichloroethane	(2	
Chloroform	(2	
1,1,1 Trichloroethane	(2	
Trichloroethene	(2	
Tetrachloroethene	(2	
Total Xylene	(2	
1,1 Dichloroethene	<i>(2</i>	
trans 1,2 Dichloroethene	(2	
Toluene	(2	
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Analyst: Dale Myers

104 W. 31st Street Boise, Idaho 83714 (208)336-1172

TECHNICO - ENVIRO SERVICE	DATE COLLECTED:	10/03/89
1776 FOWLER, SUITE 33	TIME COLLECTED:	
RICHLAND, WASHINGTON 99352	DATE RECEIVED:	10/04/89
• • • • • • • • • • • • • • • • • • • •	DATE REPORTED:	10/26/89

ATTENTION: JOHN ZILLICH SOURCE: EE 4

# LABORATORY SAMPLE NO. - 10714

ANAL YSIS	RESULTS (ppb)
Vinyl Chloride	<i>(2</i> )
1,1 Dichloroethane	(2
Chloroform	(2
1,1,1 Trichloroeth	ane (2
Trichloroethene	(2
Tetrachloroethene	(2
Total Xylene	(2
1,1 Dichloroethene	(2
trans 1,2 Dichloro	ethene <2
Toluene	<i>(2</i>

Analyst: Dale Myers

104 W. 31st Street Boise, Idaho 83714 (208)336-1172

TECHNICO - ENVIRO SERVICE	DATE COLLECTED:	10/03/89
1776 FOWLER, SUITE 33	TIME COLLECTED:	4:00 PM
RICHLAND, WASHINGTON 99352	DATE RECEIVED: DATE REPORTED:	10/04/89 10/26/89

ATTENTION: JOHN ZILLICH

SOURCE: WSW

## LABORATORY SAMPLE NO. - 10599

ANALYSIS	RESULTS (ppb)	
Vinyl Chloride	(2	
1,1 Dichloroethane	(2	
Chloroform	(2	
1,1,1 Trichloroethane	(2	
Trichloroethene	(2	
Tetrachloroethene	(2	
Total Xylene	(2	
1,1 Dichloroethene	(2	
trans 1,2 Dichloroethene	(2	
Toluene	(2	

Analyst: Dale Myers

104 W. 31st Street Boise, Idaho 83714 (208)336-1172

TRCHNICO - RNVIRO SERVICE	DATE COLLECTED:	09/28/89
1776 FOWLER, SUITE 33	TIME COLLECTED:	
RICHLAND, WASHINGTON 99352	DATE RECEIVED:	09/29/89
	DATE REPORTED:	10/26/89

ATTENTION: JOHN ZILLICH SOURCE: ER 3

#### LABORATORY SAMPLE NO. - 10598

ANALYSIS	RESULTS (ppb)	
Vinyl Chloride	13.6	
1,1 Dichloroethane	380.0	
Chloroform	63.0	
1,1,1 Trichloroethane	1093.0	
Trichloroethene	1035.0	
Tetrachloroethene	102.0	
Total Xylene	712.0	
1,1 Dichloroethene	216.0	
trans 1,2 Dichloroethene	(2	
Toluene	2100.0	

Analyst: Dale Myers

104 W. 31st Street Boise, Idaho 83714 (208) 336-1172

TECHNICO - ENVIRO SERVICE	DATE COLLECTED:	09/28/89
1776 FOWLER, SUITE 33	TIME COLLECTED:	2:37 PM
RICHLAND, WASHINGTON 99352	DATE RECEIVED: DATE REPORTED:	09/29/89 10/26/89

ATTENTION: JOHN ZILLICH SOURCE: EE 2

### LABORATORY SAMPLE NO. - 10597

ANALYSIS	RESULTS (ppb)	
Vinyl Chloride	(2	
1,1 Dichloroethane	9.7	
Chloroform	<i>(2</i>	
1,1,1 Trichloroethane	25.3	
Trichloroethene	24.8	
Tetrachloroethene	6.4	
Total Xylene	<i>(2</i>	
1,1 Dichloroethene	4.3	
trans 1,2 Dichloroethene	<i>(2</i>	
Toluene	(2	
	=======================================	=======

Analyst: Dale Myers

104 W. 31st Street Boise, Idaho 83714 (208)336-1172

TECHNICO - ENVIRO SERVICE 1776 FOWLER, SUITE 33	DATE COLLECTED: TIME COLLECTED:	09/28/89 9:40 AM
RICHLAND, WASHINGTON 99352	DATE RECEIVED:	09/29/89
	DATE REPORTED:	10/26/89

ATTENTION: JOHN ZILLICH

SOURCE: JUB 4

# LABORATORY SAMPLE NO. - 10596

RESULTS (ppb) ANAL YSIS Vinyl Chloride 12 (2 1.1 Dichloroethane (2 Chloroform 12 1,1,1 Trichloroethane (2 Trichloroethene Tetrachloroethene (2 (2 Total Xylene 1,1 Dichloroethene (2 trans 1,2 Dichloroethene (2 Toluene 12

Analyst: Dale Myers

104 W. 31st Street Boise, Idaho 83714 (208)336-1172

TECHNICO - ENVIRO SERVICE	DATE COLLECTED:	09/28/89
1776 FOWLER, SUITE 33	TIME COLLECTED:	
RICHLAND, WASHINGTON 99352	DATE RECEIVED:	09/29/89
,	DATE REPORTED:	10/26/89

ATTENTION: JOHN ZILLICH SOURCE: JUB CONTROL

## LABORATORY SAMPLE NO. - 10595

ANALYSIS	RESULTS (ppb)	
Vinyl Chloride	(2	
1,1 Dichloroethane	(2	
Chloroform	(2	
1,1,1 Trichloroethane	(2	
Trichloroethene	(2	
Tetrachloroethene	(2	
Total Xylene	(2	
1,1 Dichloroethene	(2	
trans 1,2 Dichloroethene	(2	
Toluene	(2	
		=======

Analyst: Dale Myers